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Education Issue:
Materials of the Sacred

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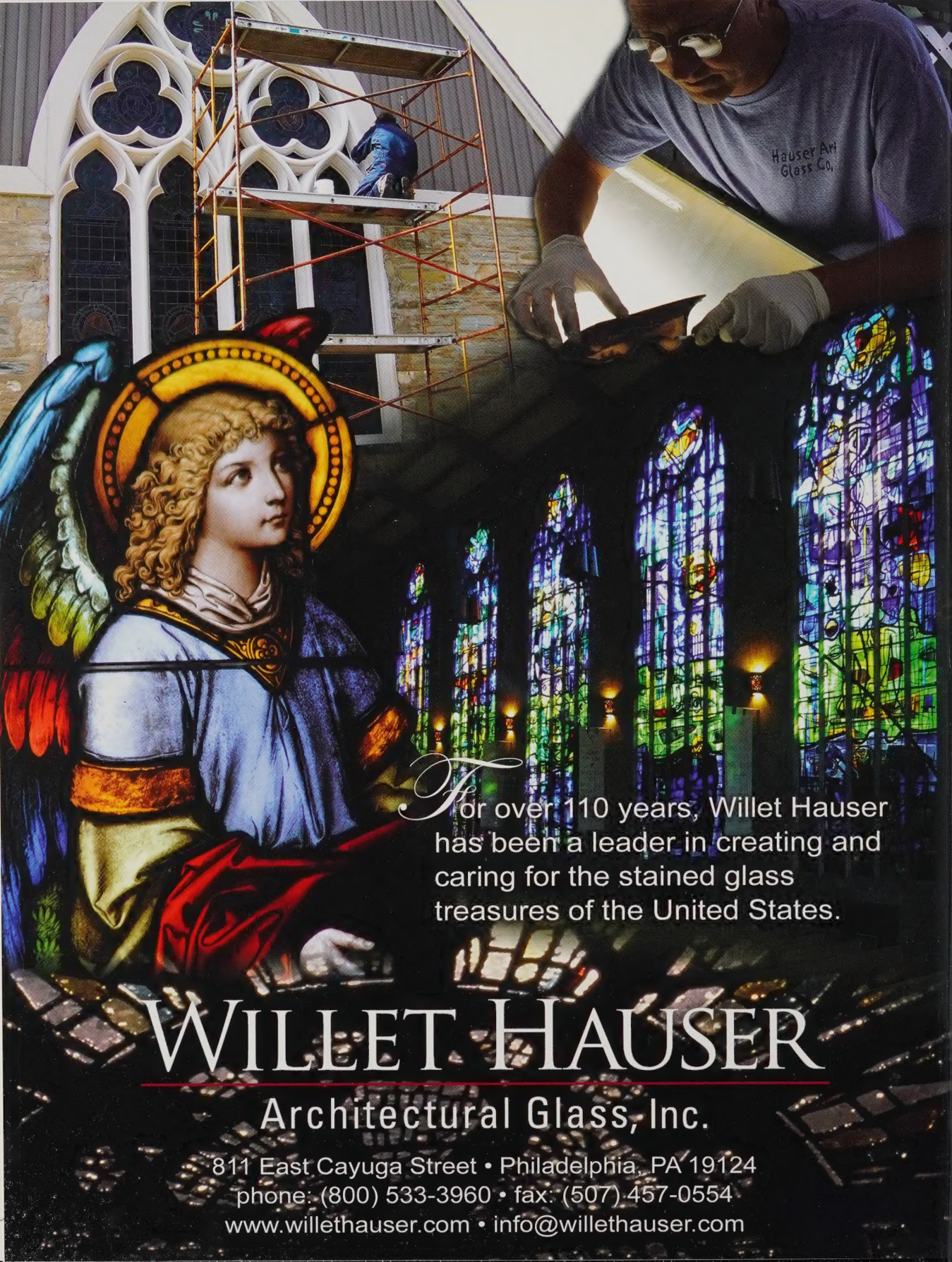

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NEXT ISSUE:
A potpourri of articles on the best in religious art and architecture.

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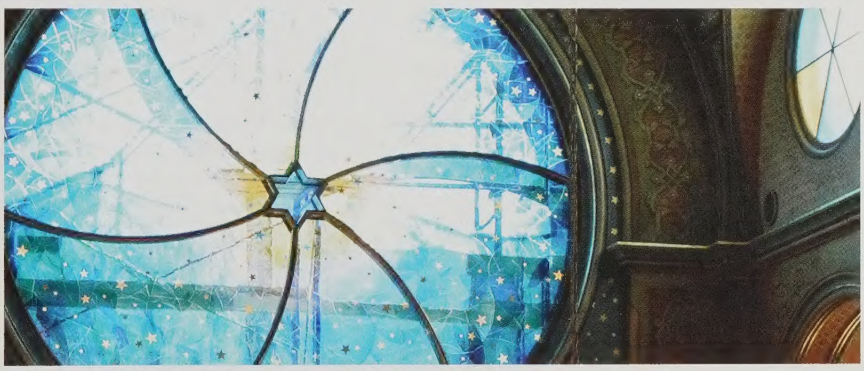

Photo: Kate Milford

ON THE COVER:
Eldridge Street Synagogue in New York, New York, features Lamberts mouth-blown glass--the first large scale, domestically fabricated example of silicone-laminated art glass. Designed by glass artist Kiki Smith and architect Deborah Gans, the window was fabricated by The Gil Studio in Brooklyn, New York. *(article begins on page 6).*

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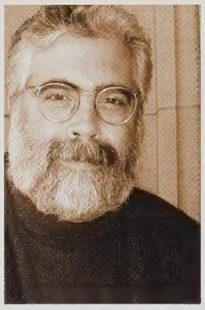

Mosque and State

What role should the mosque (or the church, or the temple, or any religion) play in the modern state? For Nasser Rabbat, Islamic architecture scholar and director of the Aga Khan Program for Islamic Architecture at the Massachusetts Institute of Technology, the answer is unequivocal: for the sake of the state, for the sake of religion, and for the sake of art and architecture, there should be no connection between religion and state.

In his keynote address at the Yale School of Architecture's conference "Middle Ground/Middle East: Religious Sites in Urban Context" (sponsored also by the Yale Divinity School, the Yale Center for Middle East Studies, and the Yale Institute of Sacred Music), Rabbat recounted the history of the Middle East, which for many years was a cosmopolitan middle ground of different cultures and religions. In the past 60 years, in Rabbat's view, the function of the Middle East as a middle ground has eroded, becoming a collection of nation states, each of which encompasses the identity of the people, the culture, and the religion. And, Rabbat notes, many of these states choose the building of mosques to manifest this national identity.

Rabbat cited several recent mosque projects in the Middle East, each one more dazzling and lavish than the last, built by the state as a national identity in stone. Many of the projects are named for the benefactors who paid for them, such as the Mosque of Hassan II that overlooks the Atlantic in Casablanca, Morocco. Named for the former ruler of the country and accommodating more than 105,000 worshippers, it is the fifth-largest mosque in the world. Designed by French architect Michel Pinseau, the mosque exhibits the strong influence of traditional Moroccan architecture. In fact, many of the large state-built mosques, noted Rabbat, are conservative in architectural style because traditional building is seen as part of the nation's identity. The implication, Rabbat explained, is that the builders of these new mosques are connected through traditional architecture to the distant leaders of the past, made manifest with materials and craft that seem impervious to change.

For Rabbat, the state support of mosque architecture contradicts the modern idea that nations and religions should be separate institutions. Architectural quality is compromised because of this conflict and because, Rabbat pointed out, many of the state-sponsored mosques are designed by Western architects whose ignorance of Islamic architecture he finds "astounding." Rabbat characterized such designs as "cut and paste" architecture.

Is the separation of religion and state likely to result in good architecture? And does the state's support of religious buildings always result in bad design? State-supported religions throughout such modern nation states as Germany, Denmark, and Great Britain suggest that state-sponsored religious building can result in good, sometimes great, architecture. The Congregational meetinghouses built by English emigrants to North America were state-sponsored religious architecture, and most of us hold them in high esteem as houses of the spirit.

There must be another reason for poor design in state-sponsored religious buildings: bad architects.

This issue of *Faith & Form* is dedicated to the materials that we use to shape and embellish our places of worship. We hope the articles might inspire new uses and interpretations of these age-old materials of the spirit.

Michael J. Crosbie is the Editor-in-Chief of *Faith & Form* and can be reached by email at mcrosbie@faithandform.com

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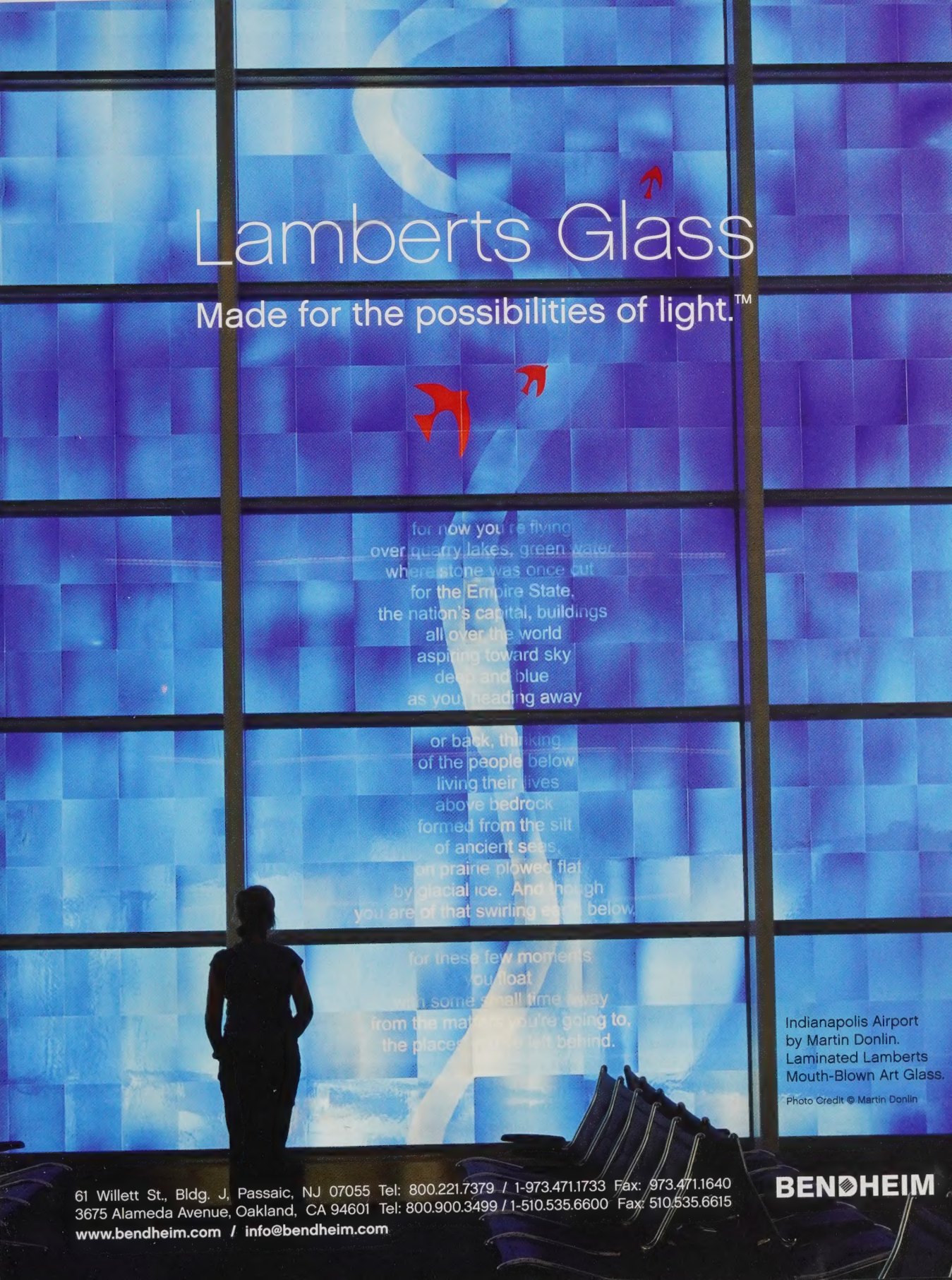
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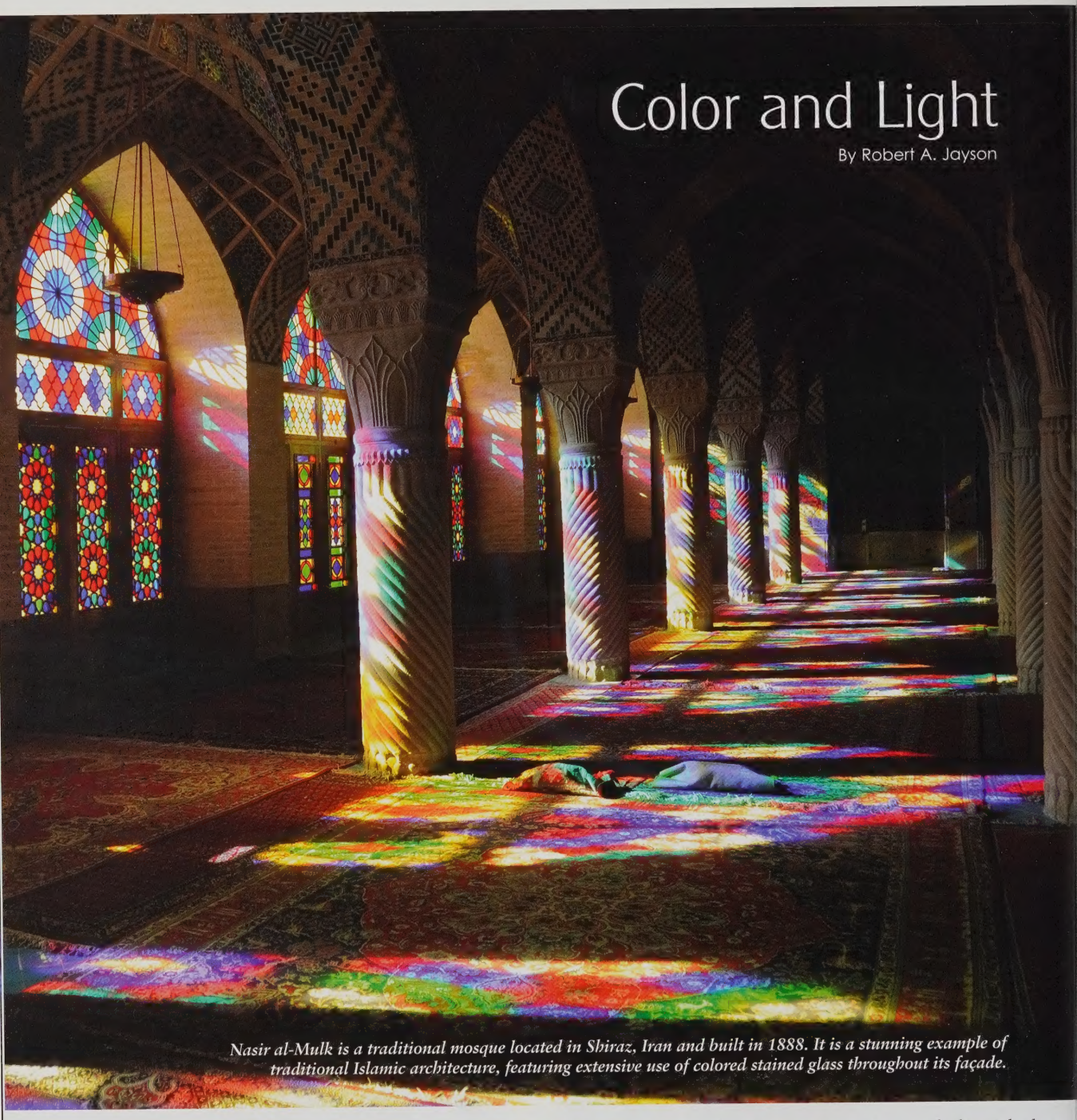
Color and Light

By Robert A. Jayson



Nasir al-Mulk is a traditional mosque located in Shiraz, Iran and built in 1888. It is a stunning example of traditional Islamic architecture, featuring extensive use of colored stained glass throughout its façade.

For centuries, those of faith have admired the stained and art glass windows in houses of worship. The changing daylight streams through the glass, shifting colors and bringing life to the windows' figures and forms while projecting plays of color and light throughout the interior spaces. The association of art glass with religious architecture has become a part of our cultural DNA, dating back centuries. During the Middle Ages, Christians and Muslims introduced large-scale, colored art glass windows, bringing light, color, beauty, and a heightened sense of the divine into houses of worship.

The Gothic stained glass style played the role of storyteller, offering Christian and secular scenes through intricate design and inspiring color and light. These windows shared the teachings of faith with all worshippers, whether literate or not. The clergy would use the windows to teach the gospel, ultimately elevating the art form as a symbol of the divine.

Natural light has always been symbolically equated with goodness and beauty, playing an important metaphorical role. In 12th-century France, the stained glass window enjoyed a growing preference among the religious community because of its exquisite relationship to daylight. In his memoirs, Abbot Suger of the Abbey of St. Denis equated "Divine Light"

Utilizing the centuries-old mouth-blown technique, a Lamberts craftsman works a large balloon of molten glass to create a sheet of Lamberts 'new antique' glass.

Detail of one of artist David Wilson's windows at Beth David Reform Congregation in Gladwyne, Pennsylvania, fabricated by WRW Studio using traditional leaded technique and Lamberts mouth-blown art glass.

with the light shining through stained glass and gems. This philosophy of Divine Light reasoned that humans could spiritually experience God through natural light brought in through vivid, large-scale windows of art glass.

Perhaps this connection between the daylighting capabilities of art glass and the worshippers' perceived spiritual experience can also be attributed to the "crown" and "cylinder" glass production methods themselves. The "imperfections" of original mouth-blown art glass, such as air bubbles, striations, and surface "movement," contribute to the living quality considered so remarkable in antique glass. Sunlight is scattered and refracted as it penetrates the uneven glass surfaces, creating what appears to be a glow from within the glass itself.

Archeological evidence suggests that 7th-century Syrian craftsmen developed the mouth-blown "crown" glass method of window glass production. The molten glass was blown at the end of a blowpipe into a round ball, then opened at the far end and spun. The centrifugal force caused the glass to open into a disc shape. It was then attached to a solid iron "pontil" rod, removed from the blowpipe, reheated, and further spun until flat. Four centuries later, German glassblowers developed the "cylinder" method of producing mouth-blown window glass. Cylinder glass is still made today by Germany's Glashütte Lamberts and by a couple of other specialized glass factories. The process begins with a ball of molten glass on the end of a blowpipe that is rhythmically blown and swung like a pendulum until an elongated pod-shape of the desired length and diameter is reached. The ends of the "pod" are cut from the glass to form a cylinder, which is then cooled, scored down its length, reheated, and flattened. The crown and cylinder methods of producing mouth-blown window glass allowed the creation of relatively large glass panels with superior transparency and a rainbow of colors.

Color has always been an essential element of glass. Medieval glaziers created a spectrum of hues through the addition of metallic salts and oxides. Added to the raw glass batch, gold produced a cranberry pink color; cobalt, blue; and copper-bearing minerals created greens and burgundy reds. Starting in the 13th century, glass masters began adding a secondary pigment to the surface of the glass in the form of a silver "stain," producing golden ambers and expanding the range of color options. These ancient coloring techniques and formulas remain in use today.

Over time, art glass progressed from serving a minor decorative role in the marble and stone windows of early houses of worship to becoming a key material and aesthetic focus in Gothic, Gothic Revival, and modern spiritual architecture. Its development was prompted by the advent of the lead glazing technique in combination with crown and cylinder glass-making. Acting as translucent walls, stained glass windows took the place of the murals and mosaics once common to religious edifices. Colored glass pieces were connected with lead channels, creating narrative panels that appeared like a mosaic of dark lines and colored light. The brilliant colors and lead lines became essential elements of Gothic architectural vocabulary.

Photo courtesy of Jeff Weisberg

Saint Augustine Preparatory School in Richland, New Jersey. Designed by J. Kenneth Leap, the project includes two windows featuring laminated stained, enameled, and etched Lamberts mouth-blown art glass, fabricated by Derix Glasstudios utilizing silicone lamination technique.

According to the Art Glass Association, the earliest account of the lead glazing technique comes from the writings of the monk Theophilus in 1100 CE. Surprisingly few of the methods Theophilus described at the time have changed over the past nine centuries:

> *If you want to assemble simple windows, first mark out the dimension of their length and breadth on a wooden board, then draw scrollwork or anything else that pleases you, and select colors that are to be put in. Cut the glass and fit the pieces together... Enclose them with lead cames… and solder on both sides. Surround (the leaded glass panel) with a wooden frame strengthened with nails and set it up in the place where you wish.*

After a brief decline during the Renaissance, stained glass enjoyed a comeback during the Gothic Revival of the mid-1800s. At this time, the Bolton Brothers left England for America, opened one of the country's first stained glass studios, and crafted elaborate Gothic style windows for churches and other buildings. John LaFarge and Louis Comfort Tiffany further popularized the American art glass movement, combining their creativity with innovative fabrication techniques. After World War II, the Neo-Gothic movement called for architectural accuracy, encouraging the creation of numerous new Gothic art glass windows.

Today, architectural awareness of the uplifting properties of daylight, superior aesthetics, and color continues to keep mouth-blown art glass windows at the forefront of ecclesiastical architecture. Contemporary artists and glass studios continue to seek the "imperfections" characteristic of mouth-blown colored glass to enhance the "spiritual" luminescence of their religious projects. Lamberts art glass is among few modern building materials crafted through the original, centuries-old mouth-blown cylinder technique.

Currently, progress in the silicone lamination of art glass, supported by Lamberts' research and development efforts, is allowing the creation of rich, painterly, lead-free glass windows of unprecedented size and visual complexity. The technique bonds the carefully cut colored glass pieces to a base glass, creating an elaborate mosaic of light and color, free of the traditional dark lead or copper lines. The base glass can be tempered or laminated in order to meet building safety codes.

Experimentation with art glass lamination started in 1910. One of the earliest successful silicone glass installations was realized in the late 1980s in England by Karl Heinz Traut of Derix Glasstudios. The first large-scale, domestically fabricated example of the modern silicone lamination technique in a religious application can be found in the Synagogue at Eldridge Street, New York City. Artist Kiki Smith and architect Deborah Gans joined forces to create the multilayered, 16-foot-diameter east window, fabricated by The Gil Studio in Brooklyn, New York. Silicone lamination is poised to enhance the role of art glass windows in modern houses of worship, possibly in the same way that leaded crown and cylinder glasses advanced the use of stained glass in medieval spiritual architecture.

Many windows in religious buildings today resemble the stained glass windows of ancient times. Although some are abstract works of art, they all focus on creating an atmosphere of light and color for the enhancement of the spiritual experience in houses of worship, much as the original Gothic stained glass windows did. This art form, developed nine centuries ago, continues to evolve and enjoy an everlasting place in modern religious art and architecture.

Robert Jayson, the third-generation owner and current president of S.A. Bendheim Ltd., has more than 30 years' experience in the fields of specialty glass manufacture, application, import, and distribution. He is the only American to have worked in the Glashütte Lamberts of Germany. As a working member in a glassblowing team, he studied and learned the art of mouth-blown sheet glass production. His extensive knowledge spans Bendheim's full line of glass and related products.

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CONCRETE CANVAS

by Trey Trahan, FAIA

Exterior of the Holy Rosary Oratory is a pristine concrete cube that expresses its formwork.

Photo: Tim Hursley

While concrete has been used in construction since the time of ancient civilizations, its qualities of being authentic and appropriate continue to make it a unique and changing building material. For sacred space, it is a material that is truly born of place, rooted in history and culture, with an unpredictability that creates an endless array of unique and enduring experiences. It provides a timeless canvas upon which both the designer and nature can interact in a brilliant display of colors, shapes, and motion.

The nuances of achieving these effects demand rigorous contemplation, attention to detail, and skilled artisanship. The inherent qualities, complexity, and subtleties of form in cast-in-place concrete construction embody the intent of the sacred design through place and nature.

For this exploration, we share an understanding of how concrete's ingredients are grounded in place, and how its making challenges even the most skilled craftsperson, reminding us why nature continually changes our experience of it. When the efforts of faith, architecture, and building beautifully come together, a canvas is formed that allows introspection and transcendence, creating a highly spiritual experience.

The journey begins with an understanding of both materials and methods. This article is not technical in nature; it is only through deep understanding that I have found concrete's capacity to create sacred places. I have rejected the notion held by some that concrete is generic and therefore not appropriate for places of worship. The right materials will always allow us to be rooted in place. It is the color and texture born out of the materials–trees casting shadows, light reflecting on the materials, rain changing the exterior surface appearance–that create a unique canvas to reflect place as the elements interact with the surface.

At times, concrete can look very soft; at other times, very hard. Every piece of concrete is unique. The slightest change in ingredients or in building yields vastly different results. The comparison I always make is to chocolate. If you were to walk into any fine chocolate store you would see countless pieces of confectionery artisanship. At first glance all of the chocolate might seem the same, but upon closer inspection each piece would be unique. Chicory-infused café-au-lait ganache, sage-infused milk chocolate, or Madagascar bourbon butterscotch caramels push your taste buds to the limits of sensation. (If you're not a chocolate lover, think of the difference between white bread and flat bread, multigrain or sourdough.)

Unfortunately I have never encountered such a store for concrete, but if one did exist there would be countless variations of color, texture, strength, and weight, all achieved through small changes to materials and methods.

The basic materials palette for concrete was developed in ancient times during the Roman architectural revolution. Its composition–cement, aggregate, and water–are fundamentally unchanged, the building blocks for a material truly found in place. Cement, admittedly, is a relatively generic material, but aggregate and water are the embodiments of any place. Whether you are in New York or Hong Kong, sand and gravel come out of the ground and go into the concrete mix. Water comes out of a well or river and also goes into the concrete mix. Cement

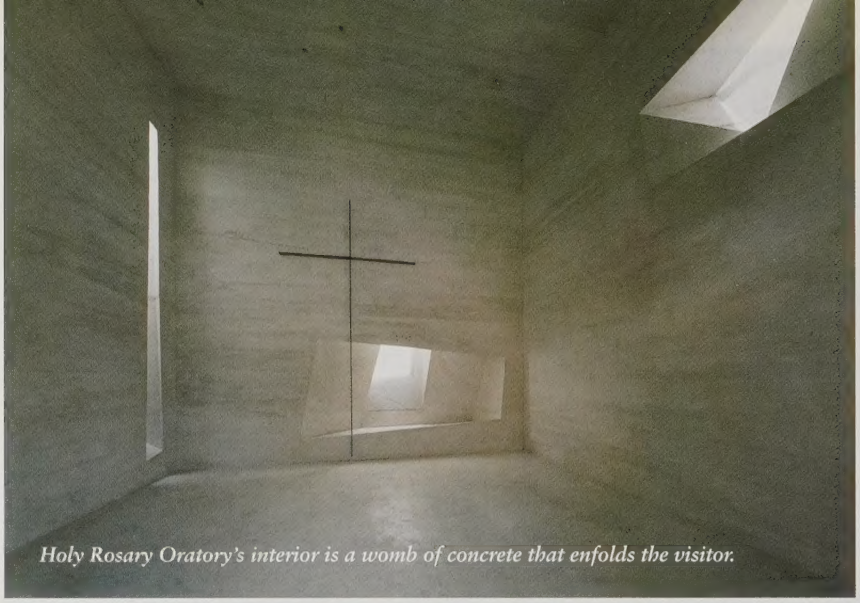


Photo: Tim Hursley

Holy Rosary Oratory's interior is a womb of concrete that enfolds the visitor.

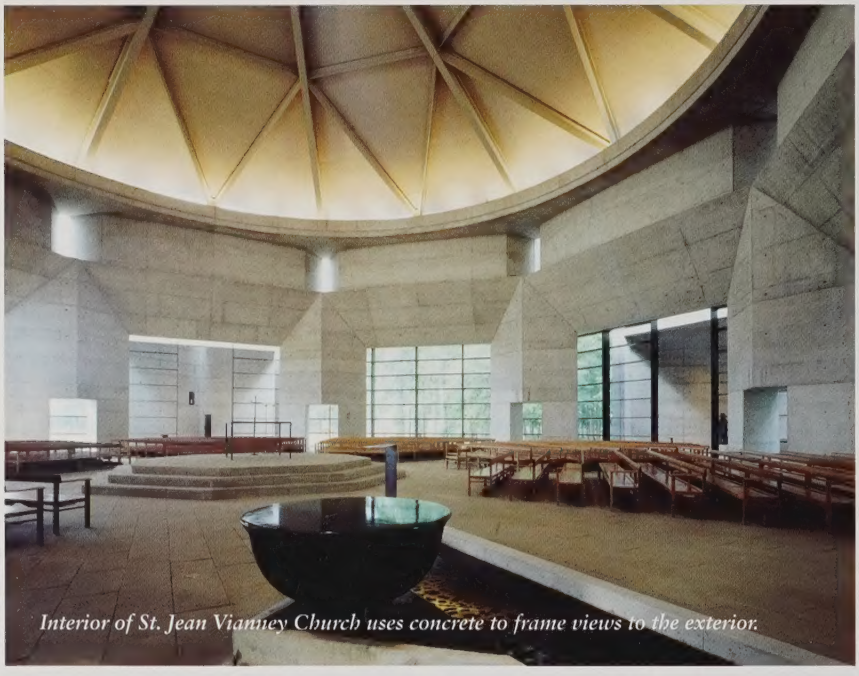


Photo: Tim Hursley

Interior of St. Jean Vianney Church uses concrete to frame views to the exterior.

then is the coagulant that holds these pieces of nature together in a way that is embodied in the word concrete, which comes from the Latin word *concrescere* meaning "to grow together." The color of the sand and the pH level of the water both influence the final product and to some degree are not totally predictable. There is mystery in what the final product will yield and that makes concrete a material of place.

The next step in the process is to form this mix into architecture and that is where architects put their faith in the builder. Concrete is such a sensitive material while being formed that if you put a piece of paper between the form work and the mix, the shape of the piece of paper will appear in the final product. The craftsperson must take care in making the formwork, and the degree of perfection is paramount because every decision influences the final product.

For instance, spacing of whalers (the structural framing system that supports the forming of the concrete) determines how much the formwork can deflect during the pour and, ultimately, the characteristics of the finished surface. If the whalers are closely spaced, the finished surface is going to be truer and might be more appropriate for architectural moments that are absolute. But if the whalers are more widely spaced the surface will have greater variation, implying the moment is subject to greater interpretation.

In the design of the oratory for Holy Rosary Church Complex, a rural campus in St. Amant, Louisiana, we used 1 x 12 boards as the formwork for casting the concrete because the original church on the site was built using 1 x 12 boards; so you begin to read the original horizontal grain in both the interior and the exterior of the oratory, reminiscent of the old wooden church. There is a subtle difference between the forming used for the sacred building to reflect the original church and the forming used on the secular buildings on the site. When you view the buildings from far away, they appear the same but as you view them more closely, you realize there is a textural difference and the experience changes.

For Holy Rosary, our initial intention to differentiate the chapel from the secular components of the plan included using seamless

Interior rendering of the First Presbyterian Church of Colorado Springs, Colorado, with its expressive use of concrete.
Drawing courtesy of Trahan Architects

concrete. Working with the contractor, we developed a technique of finishing the seams between form panels with bondo to create a smooth, continuous form. What we didn't know was the rate of hydration was different for the form panel and the bondo, so when the formwork came off the mock-up, the bondo joints could be read clearly. This brings me to a peripheral but equally important point: the unique nature of concrete demands testing. Just as a choir practices its songs or a preacher develops a sermon, so must a contractor mock up concrete.

Once the space is formed, one thing that always amazes me is how nature affects concrete. Nature makes concrete into a canvas. The morning sun will flood a concrete room with healthy reds, oranges, and yellows. A tree can paint a shadow mosaic on any unassuming concrete wall. The afternoon sun may draw a sharp line on a concrete floor, distinguishing light from darkness, or the calamity of the real world from spiritual enlightenment. What is even more amazing is how a congregation or an individual responds to nature being brought into a place of worship.

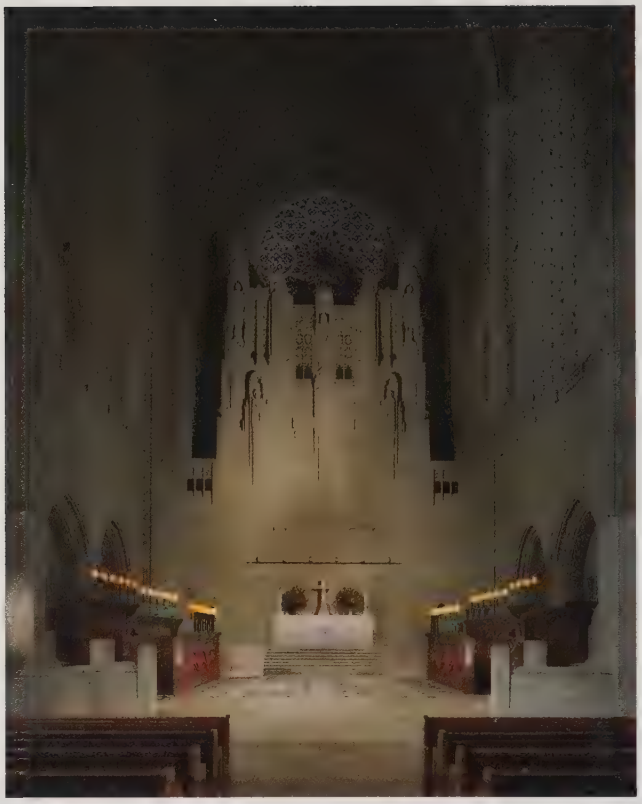
In our designs of both the St. Jean Vianney Catholic Church in Baton Rouge, Louisiana, and the Holy Rosary Church complex, we used apertures that allow natural light to pierce the space, bringing nature into the interior to softly play against the concrete and to create a constantly changing canvas of shapes and colors. The beauty of concrete in the design of sacred space is that it allows the congregants celebrating the services to become the primary focus.

I will end this exploration with a caveat: just because we designers can make concrete into almost any form imaginable, it doesn't mean we should. Liturgy demands both quality and appropriateness. If the surfaces of a space are stripped of the superfluous, that space is truly authentic and genuine.

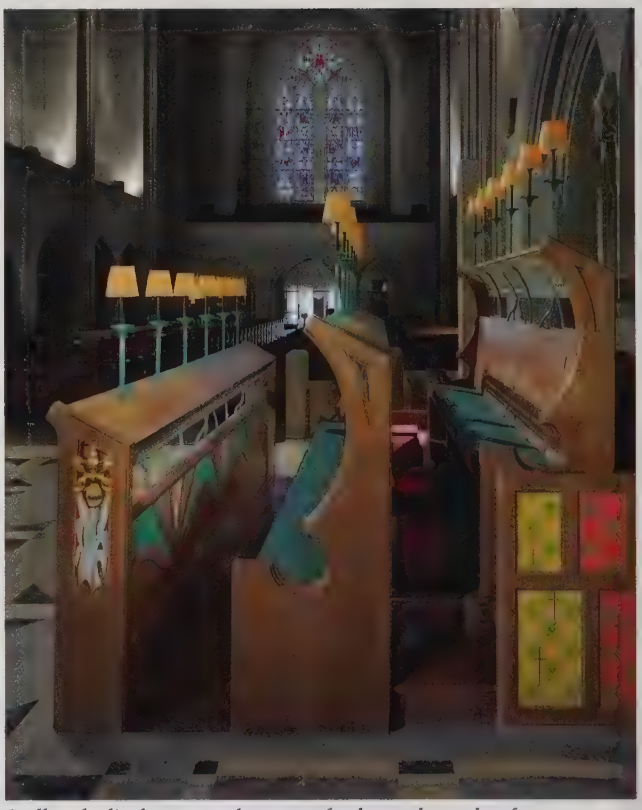
Environment and Art for Catholic Worship asserts, "The style in which a church is decorated should be a means to achieve noble simplicity.... The choice of materials for church appointments must be marked by concern for genuineness and by the intent to foster instruction of the faithful and dignity of the place of worship."

Designing sacred space requires a deep understanding of ourselves and our own sense of place. Concrete as a building material provides a natural canvas that is born of place, reflective of the human spirit, and illustrative of the mystery of faith.

Trey Trahan, FAIA, is President and Principal-in-Charge of Trahan Architects in Baton Rouge, Louisiana, and served as the 2010 Faith & Form/IFRAA Awards jury chair.



An oasis of wood choir stalls amid Heavenly Rest's great expanses of limestone.



Stall ends display an exuberance of color and woodcraft.

Oasis of Wood Amid Stone

by *Hugh Harrison and Gerald Allen*
Photos by *Tim Buchman*

Wood, for the most part, is not a precious material. But it has over the ages been part of the fabric of many sacred places. The stave churches of Northern Europe come to mind, as do their cousins, the wooden churches of Russia. In the East, Buddhist temples exhibit the woodworker's craft at its finest, while in the West, the choir stalls and rood screens of medieval churches sing praise to the versatility of this material. Throughout Europe, wooden synagogues were a testament to the pliant accommodation that wood could render any faith tradition in any age.

Sometimes, wood in a sacred place can be a fragile oasis amid more lasting materials. Such is the case in the Church of the Heavenly Rest at Fifth Avenue and 90th Street in New York, New York, designed by three senior associates, Francis L. S. Mayers, Oscar Harold Murray, and Hardie Phillip, of Bertram Grosvenor Goodhue, who died in 1924 just before the project began. By the time of its consecration, on the eve of the stock market crash in late1929, many of its details remained incomplete, as they do today.

In 1993 a major fire damaged much of the interior, including the somewhat hastily designed choir stalls that had been installed when the building first opened. Made almost entirely of Indiana limestone, the building is relentlessly austere, with large, plain surfaces flecked and dappled with, and moments of, concentrated embellishment, as in the huge stone reredos behind the high altar. The choir stalls are a warm, colorful oasis amid all the stone. We designed the new choir stalls to provide spirit-lifting embellishments, particularly when seen up close. They also bring color and, with their candelabra, softly glowing light.

The stalls are basically made of wood, but wood used in two different ways. First, decoratively; the wood is beautiful in itself, and so can be the ways it is sawn and joined, shaped, and proportioned. Second, we used the material ornamentally; the wood is easily carved in an almost infinite number of shapes, and its surfaces can be left bare, painted, or gilded.

The wood is English oak (*Quercus robur*), a near relation of American red and white oak (*Quercus rubra, Quercus alba*) well known for similar uses in East Coast churches. The English climate creates interesting characteristics of grain and more noticeable medullary ray. This is the web of extra-strong fibers radiating out from the center of the log which, when cut parallel to the ray, displays these flecks; in times past this display was seen as admirable. Here the timber was cut to show the flecks, both because this is the most stable cut when using oak, and because the fleck does indeed add visual interest.

Wood was used in combination with polychrome carving and metalwork. All three materials play their part: The metalwork provides the means of supporting the book boards (a somewhat prosaic requirement) in a light and adventurous way. The wood creates the basic structure of the stalls with large, unadorned surfaces.

Plain wood surfaces like those on the stall fronts support the elaborate, waving ornamen-

Wood is used in combination with polychrome carving and metalwork.

Undersides of book boards feature understated decoration.

tal bands above. These are meant to recall what in English gardening is known as a tapestry hedge, in which a riot of different trees and shrubs and vines are planted together, then trimmed into regular shapes and surfaces. In this design, color ornaments the tapestry hedge, and the carving provides texture. The ends of the stall fronts are made entirely of wood formed into bold, plastic shapes clearly visible from the nave. The wood is also carved into ribbed iris leaves that contrast with the wonderful floppy petals of the flower.

The various properties of wood are demonstrated in the stalls. The long continuously curving line can easily be created in timber, and here it is painted to enhance the curves. Thus the play in the apparent movement of the front unpainted molding increases and diminishes against the moldings top and bottom, an aspect not so noticeable in an unpainted molding. Here timber facilitates the design, while paint enhances the design. Vault ribs are jointed with mason's miters to the curvy rib and the top rail, emphasizing the construction particularly with the oak pins.

The geometry of the shape of the panels with the mitered moldings emphasizes the fact that they are made of wood, yet the maximum effect of the moldings is made by painting them, providing surfaces for the impact of shadow. Within these compartments is the froth of the tapestry hedge in the wide panels and the angularity of the stems of the thistles and the rose: a direct allusion to medieval vaulted rood screens common in the part of England where these choir stalls were made.

The underside of the book boards could have been left plain, but these surfaces provided just the right location for almost hidden decoration that is in fact beautiful in its discovery—perhaps at a chance moment of one's dropping a paper, picking it up, and seeing for the first time the layers of color used to create this simple pattern. Here wood is better used as the vehicle for a more decorative surface than it would have been if left unadorned. Above the book board stands a forest of daffodils in the form of the candelabra with their golden, pleated silk shades.

Hugh Harrison is one of England's most distinguished timber-conservation contractors (hugh-harrison.co.uk).
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Stone Sentinel

By Malcolm Holzman, FAIA

Photo by Tom Kessler; courtesy of HMBA

Interior of the Salameno Spiritual Center is distinguished by a solid block of granite for an altar table.

Favorable circumstances and personal inclination have enabled me to explore the use of stone as a building material for more than four decades. Stone is harder to shape than wood and much less forgiving than clay; its finished volumetric surfaces can call up visual impressions while also imparting irresistible tactile sensations. Stone's richness of texture, color, and finish cannot be found in other materials. For millennia, it has been the material of choice for sacred spaces around the world.

Stone can be more than just the symbol of historic structures that evokes the perpetuation of embalmed design styles, that propagates archaic customs, or satisfies the current national enthusiasm for nostalgia. Familiarity with techniques of quarrying, cutting, and erecting stone is essential if the architect is to avoid adopting styles and practices that have exceeded their usefulness. Working on the principle that the continued evolution of stone usage will lead to architecture's possessing a full and consistent meaning for our times, I strive to take advantage both of current methods for fabrication and installation and of reinvigorated existing ones.

In its most compelling form, stone imparts color, texture, and diversity. At its most finished, stone can be smooth, reflective, and even lush. These distinctive qualities, along with many others, should be exploited, not minimized. A long-standing interest has been the expression of the underlying characteristics of the material: mass, weight, and gravity. Numerous architects have explored these properties, and a limited number during the last century have communicated these attributes in original ways. Regardless of style they have designed projects that transmitted their personal interests and concurrently advanced the use of the material, often with unexpected results.

Stone was selected to create a sense of permanence and to invite contemplation in the design of a sacred space at Ramapo College, a 6,000-member educational community in northern New Jersey. The new Salameno Spiritual Center was first proposed in 2001 by Dr. Anthony T. Padovano, Distinguished Professor of Literature and Philosophy at Ramapo. The institution's leadership wanted to recognize the spiritual dimension of life on campus through the building of a non-denominational spiritual center, a facility that would meet student requests and faculty concerns, and that would be endorsed by administration, staff, and the general public. As Padovano indicated at the outset of the project, this was to be "a place where everyone is welcome and where no one feels alienated. A site where weddings and anniversaries are celebrated, where funerals and memorials take place, where prayer and meditation occur, and a place to ensure that those who come to campus see that the college has tried mightily to heal and enrich student life."

An undeveloped two-acre parcel adjacent to Kameron Pond near the center of the campus was selected, a small reminder of the 19th-century Havemeyer estate that formerly occupied the site. This location in the midst of campus life was extraordinary and inviting.

The Spiritual Center is an ordered arrangement of six small new woodland gardens, four single-story structures, and two outdoor gathering places. The Peace Pavilion, a

Photo by Tom Kessler; courtesy of HMBA

The spiritual center's stone sentinel, as it was retrieved from the Mahogany Quarry in South Dakota.

Photo courtesy of HMBA

faceted enclosure, forms the largest interior gathering space: triangular and trapezoidal sloping planes rising to 25 feet, while shaping 800 square feet of interior space to accommodate no more than 80 individuals at a time. Constructed with humble materials such as pine boards, acoustic panels, and colored concrete flooring, this space accommodates groups of various sizes and religious beliefs. A clerestory roof opening and ribbon windows provide ample daylight and framed views of the pond and sky. Only one object occupies this Spartan room: a three-ton granite block.

The stone's finished size is almost identical to its size when it was removed from the Mahogany Quarry in South Dakota. Drill lines and rough vertical surfaces testify to the force required to rip it from the earth. The top of the block has been highly polished to intensify the warm red-brown, even texture of the material and to feature an errant dark stripe suggesting its natural formation eons ago. It stands silently on one side of the room parallel to one wall.

Playing many roles, the stone block is a participant in every activity in the pavilion. A point of convergence, it serves as a resting place for flowers or a candle, a location for a draped piece of fabric or a prayer book, a focus for ritual when needed, or an object to gather around. Used in divergent ways, it stands as a silent sentinel. Its unadorned presence in this space testifies to the firmness of the earth from which it came and the importance of the natural world, and contrasts with the manmade materials that surround it. It conveys a sense of permanence and timelessness that no other material I know could so effectively achieve.

The Salameno Spiritual Center is a series of diminutive structures surrounded by much larger academic buildings. The unexpected granite block, with the expressive intensity of its material and the incongruity of its finishes, invites both use and contemplation. This evocative presence comes, I believe, from the contrast of the surfaces of the stone that were left just as they were in the ground, with the industrial precision of the polished top. The simple but carefully considered installation casts a transforming effect on the stone and on the use of this memorable space.

Malcolm Holzman, FAIA, is a founding partner of Holzman Moss Bottino Architecture in New York, a national architectural and interior design firm specializing in the design of evocative cultural, civic, and academic buildings including libraries, facilities for student life, and performing and visual art centers that all welcome public use. *Stonework*, a 2001 Images publication, celebrates his 40-year use of stone in distinctive architecture.

A Stone for the Ages

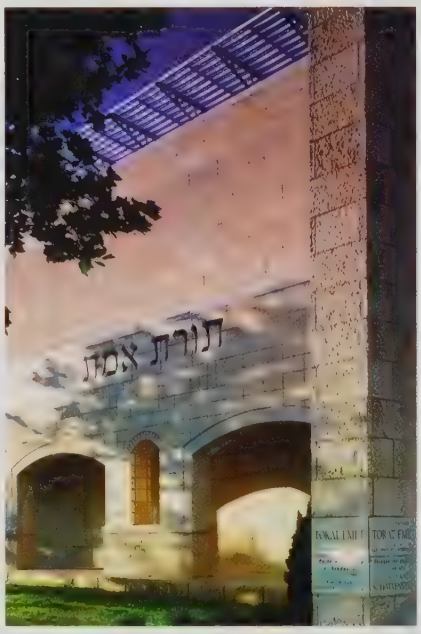
By Han Ben-Ezri

Photo: anaulin/flickr.com

Pilgrims venerate the Stone of Unction at the Church of the Holy Sepulchre in Jerusalem.

Photos: Courtesy of Jerusalem Gardens Stone

The Church of Transfiguration in Orleans, Massachusetts, designed by William Rawn Associates, uses Jerusalem Stone in its apse.



Torat Emet Synagogue in Bexley, Ohio, designed by RED Architects, uses various finishes of stone.

What is common to the tomb of Christ, the U.S. Naval Academy in Annapolis, and to the Western Wall in Jerusalem? The answer is a material that has been known historically as Meleke, which means "the stone of kings" or "the royal stone." Today, we know it more simply as Jerusalem Stone. A very strong, highly dense dolomite limestone, this material is quarried in Jerusalem and in its surrounding mountains.

The city of Jerusalem itself is alive with this stone. Like fine wine, the material takes on various warm hues and diverse textures and it improves with time, even over millennia. The Western Wall, the numerous synagogues in Jerusalem, the walls of the old city and its streets, the dozens of churches including the Church of the Holy Sepulchre, the mosques, and many other historic buildings serve as testimony.

Also like wine, Jerusalem Stone takes on the color of the earth from which it is gathered: white, cream, yellow, gray, blue, red, and various intermediate shades. The Stone of Unction, at the entrance to the Church of the Holy Sepulchre (also called the Church of the Resurrection) at the end of the Via Dolorosa within the walled Old City of Jerusalem, commemorates the preparation of Jesus' body for burial. The Stone of Unction is a type of Jerusalem Stone known as Jerusalem Red. This flame-colored slab is about six meters long and a meter wide. It dates back to 1808, when the former 12th-century slab was destroyed. Jerusalem Red is commonly used in contemporary churches, such as for the outdoor cladding on the First Baptist Church in Gainesville, Georgia, and for the indoor cladding of the Church of Transfiguration in Orleans, Massachusetts.

In contemporary synagogue design, Jerusalem Stone is often used to create a simulation of the Western Wall. The original Western Wall is, of course, constructed with Jerusalem Stone, and has been one of the supporting walls surrounding the Temple Mount for about 2,000 years. Jewish tradition assigns special holiness to the Western Wall, and for this reason a place of prayer was established in its proximity in the 14th century and is still used to this date. The Western Wall has religious, national, and historic significance, with millions of visitors, Jews and non-Jews alike, every year. Youngsters celebrating their Bar Mitzvah come with their families, as do VIPs

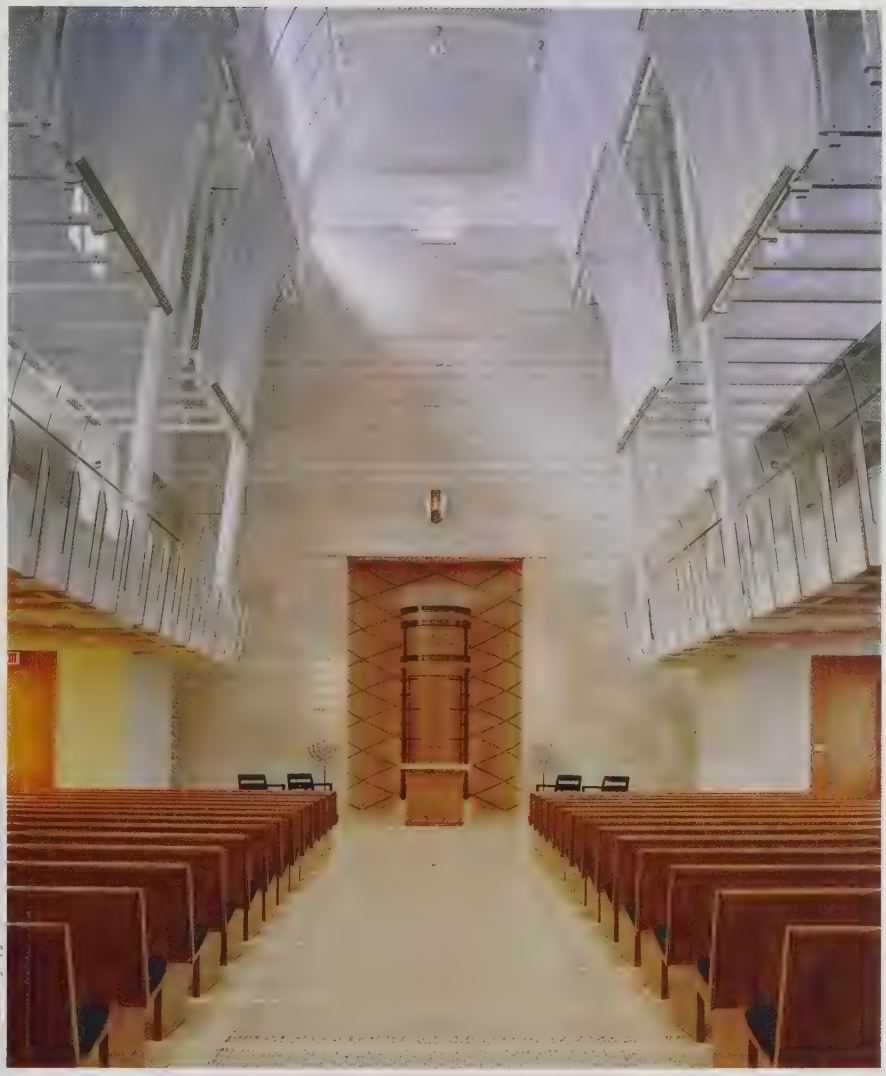


Photo Courtesy of Jerusalem Gardens Stone

Levy Chapel at the U.S. Naval Academy in Annapolis, Maryland, designed by Boggs & Partners, features Jerusalem Stone on its interior wall.

from around the world. Stone cutting for this type of wall is usually coarse, and the material mostly serves as a central wall in a synagogue. An example is the Torat Emet Synagogue in Ohio, where the stone wall is found in the lobby and extends in two wings to the external part of the synagogue.

The material is also often used for the wall behind the Holy Ark; it is of great importance as it is located within the prayer area facing the congregation, and is therefore seen at all times. This wall can also contain elements reminiscent of the Western Wall. An example of this type of wall, an honor award winner in the 2006 Faith & Form/IFRAA International Awards Program, is in the Levy Chapel of the U.S. Naval Academy.

Cladding the exterior of a religious building with Jerusalem Stone wraps it in a material that has for millennia been the material of choice for sacred structures. The material is expressive in different ways according to its finish: rough cut, rock-face, chiseled, or smooth-face, laid in regular or irregular rows, laid in a pattern, small stones with traditional cutting, or larger stones with a contemporary appearance.

In Jerusalem, one's feet tread upon a material that has survived the wear of thousands of years of use and is still serving its original purpose. The polished, textured, sun-baked walls of this holy city also remind us that this material—very ancient, and very local— can today take an honored place in sacred buildings around the world.

Ilan Ben-Ezri is Marketing & Sales Director for Jerusalem Gardens Stone Works Ltd., a family-owned company that supplies natural stone in general and Jerusalem Stone specifically for projects all over the world. He can be reached at: ilan@jgsw-group.com

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Threads of Spirit

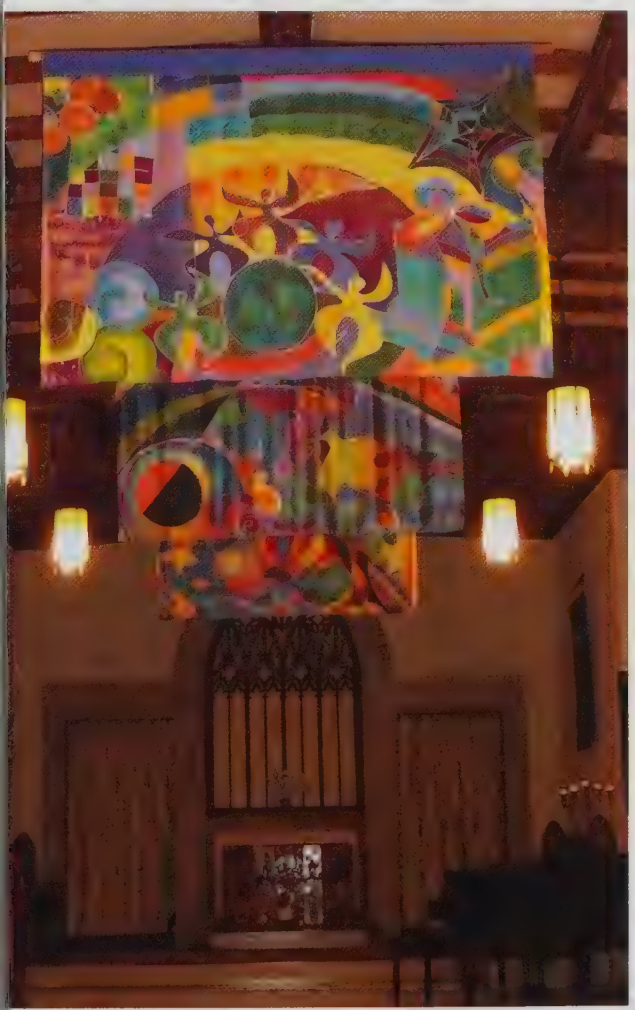
By Nancy Katz

While concrete and wood may be relatively foreign materials to many, everyone has a relationship to fabric. It is, after all, the most intimate environment that we have. Upon entering the world, leaving the protection of a mother's womb, the newborn is swaddled in fabric. Upon leaving the world, we are clothed in special garments. And in between, all the days of our lives, we choose clothing of varied colors and textures that define who we are, or how we are, at any given time. The versatility of cloth is a blessing in itself. We can use it to embellish and enhance the edifices where we pray in community. We can wrap bodies, our personal temples, in cloth to find the comfort and nurturance we seek.

Fabric in a worship space is relatable and flexible. It has adaptable and transformative capabilities. It provides a decreased sense of alienation, disaffection, and isolation and an increased sense of closeness. Fabric can transform the built environment: a room that serves as the spiritual home to one faith group on Saturday can be home to another on Sunday. A special fabric covering a table or a banner hung on the wall can make all the difference.

With their adaptable–almost magical–capacity, textiles can transform and enhance any place. A piece of fabric takes on symbolic value while creating sacred space. It can be anywhere: a hilltop farm may become holy ground; a cold convention center, a sanctuary. Unlike more rigid materials, fabric allows for changeability, staying current with the season and the need. Churches mark time by hanging differently themed banners throughout the year. Many synagogues dress their Torahs in white to mark the High Holy Days, with some including congregants in the change as part of a ritualized service. While a facility is undergoing construction and a community requires temporary space, fabric panels can not only spruce up the space, but also serve as "transitional objects," connecting one spiritual home to the next.

I have witnessed change in the material culture of sacred life over the past few decades. As an artist I have, in fact, been part of a "mini-



Banners created for Mount Holyoke College's interfaith chapel.

A young tallit maker.

Photos: Nancy Katz

Photo: M. Liebrouitz

A community at work painting a hevreh.

Photo: M. Liebrouitz

The completed hevreh curtain installed.

revolution," blessed with the privilege of working with individuals and community members in the personalization of sacred life through cloth. I first realized the transformative power of fabric in the late-1980s through my involvement with the AIDS Memorial Quilt. Initially as a volunteer and then as the director of education and outreach, I saw, over and over again, two yards of fabric serve as a testimonial to a life cut short in a world where the cause of death was considered taboo. Upon ending my work with the Quilt I committed to making art full time. I had learned about manipulating colored dyes on the surface of stretched silk, and I became part of a cadre of artists whose self-assigned job it was to "update" Jewish religious life.

In Jewish spiritual life vestments are not limited to clergy. Customs vary in different circles, with congregants either obligated or welcome to don a prayer shawl. In the 1990s, women claimed an increasing role as spiritual leaders: rabbis, cantors, and soloists. It was evident that sacred garments that worked for their male counterparts would not serve their needs. While specific requirements exist for prayer shawls (tallitot), e.g., woolen strings knotted and wound in a prescribed manner and attached a thumb's breadth from each of four corners, there is much flexibility with regard to the color and the design of the base fabric that was historically black-and-white-striped wool. The women rabbis took delight in having new options.

According to the Talmud (RH17b), to be enfolded by the tallit is regarded as being enveloped by holiness. For the past two decades, young women and men coming of age in this new world have chosen to create their own tallitot. These personal ritual objects reflect who they are and who they intend to be as they take their place as members of the Jewish community, enveloped by a holiness they can claim as their very own. My job has been to serve as a midwife to this process. I have seen two yards of white charmeuse become transformed over and over again: taken off a 45-inch-wide bolt and made into an expression of the holy and communal spirit of both individuals and communities.

Ah, if those stretcher frames that I have used over the years could talk, the stories they would tell! They would speak of women rabbis gleefully putting brush to silk to create a communal tallit painted by members of their professional organization at a convention in the early 1990s; and of the students from multiple faith groups at Mount Holyoke College who helped design and create three banners that now hang in the school's interfaith chapel, representing the themes of Peace, Source, and Community. Those frames would also tell of the hundreds of congregants who, over the course of one Sunday afternoon, painted 12 banners that were used to cover acoustical panels in a synagogue in Bellevue, Washington.

In November of 2001 several thousand lay and professional Reform Jewish leaders from around the country gathered in Boston for their Biennial Conference. At these gatherings, a week filled with meetings and workshops, a highlight is always the shared prayer experience during Shabbat, when the entire community converges. Before the conference, I was approached by Rabbi Daniel Freelander who was responsible for its programming. He felt that while the Hynes Convention Center could physically accommodate the thousands of attendees for communal worship, the space was too stark, too cold, for an ideal experience, and he enlisted me to help out.

I was charged with the task of designing nine six-foot banners that could be painted by conference attendees before Shabbat and then hung on the concrete walls to transform the space for its holy sacred intention. The result not only softened and warmed the space, but it personalized it as well. Community members literally had a hand in creating the worship space by painting and "bringing to life" pieces of silk prepared before the event. When we enter a space seeking some-

thing familiar, a banner or a hanging we have helped to create gives us a sense of belonging. It's that simple.

In a spiritual space in the built environment textiles often provide the principal focal points. The prime elements in a synagogue are covers for Torah scrolls, curtains for the Holy Ark. These textiles provide the opportunity for the congregation to personalize their relationship with Torah and to express a communal personality.

The sacredness of fabric envelops the most important times of our lives. A Jewish wedding takes place under a fabric canopy held up by four poles; this chuppah represents both Divine Presence over the covenant of marriage and a "home" open on four sides to welcome guests, as did the tent of Abraham and Sarah.

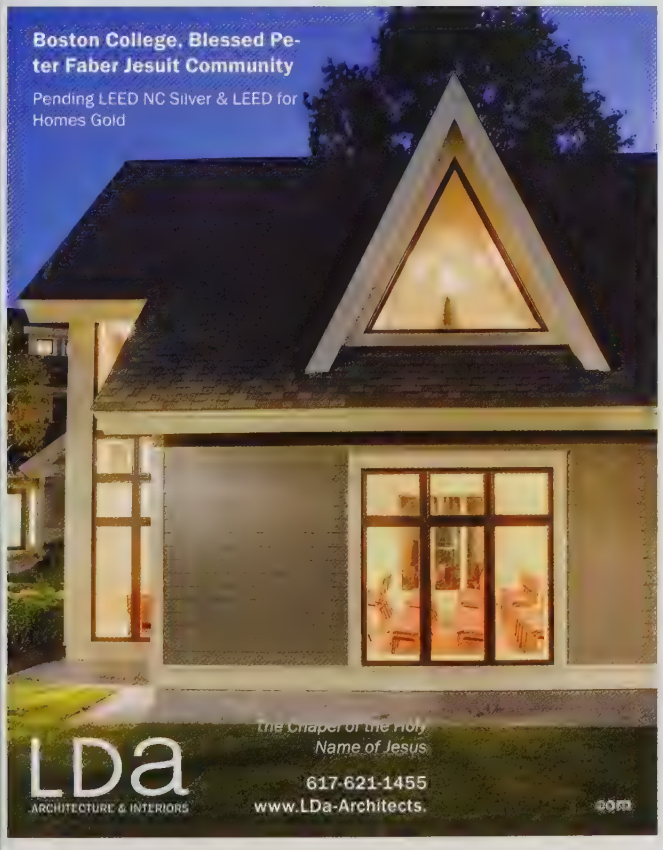
With a simple, spontaneous prayer, El na, refah na la (God, please, heal her, please), Moses called out on behalf of his sister, Miriam. (Numbers, 12:13) We use the words today to pray for healing. I write them on long pieces of silk to make scarves to comfort those in need. When the need subsides, the fabric, imbued with kavanah (intention) is passed on to others in need.

Judaism has a term for the beautification and embellishment of sacred objects. It is hiddur mitzvah. The notion is that, for example, in fulfillment of a mitzvah (obligation) though a "thimble's worth" of wine may be consumed using a small throw- away cup, how much more profound and holy will be the fulfilling of the mitzvah if the cup itself is beautiful and is made especially for the occasion.

The Dalai Lama has said: "Human beings are of such nature that they should have not only material facilities but spiritual sustenance as well." Our charge is to help create the experience of the one fostering the other.

Photo: S. Sureck

Nancy Katz is an artist and educator, whose work can be seen at nkatzart.com. For the past three decades Nancy's primary medium has been painted silk. Now she also designs for stained glass with her husband, Mark Liebowitz, of Wilmark Studios, in Shelburne Falls, Massachusetts.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Heavenly Metal

By Catha Grace Rambusch

Since time immemorial, iron, copper, and bronze, as well as silver and gold, have been used to embellish sacred places and objects. Technically demanding, complicated processes for extracting and purifying the ores from their stony matrixes could be considered dedicated, artful, even prayerful acts.

Shaping the metal in its pure form is achieved by numerous means. Most common is hammering free form or with forms and beating the metal into the desired shape (repoussé). Even more difficult is casting molten metal and forming it with the use of a mold to achieve the desired shape. Cast bells and gongs (some of which are also spun) are common to worshiping communities around the globe. Exterior doors, in addition to their function, serve to adorn houses of worship as well as to provide surfaces for rich symbolic content. The east doors in the baptistery in Florence by Ghiberti (1378-1455) are well-known Western examples.

I write about the use of metals in sacred places from first-hand experience in the studios of Rambusch, but that experience is echoed throughout metalworking studios of various sizes in this country and abroad. For more than a century our craftspeople have used every kind of metal– gold, silver, platinum, Monel, German silver, nickel, aluminum (in a prototype altar set for ALCOA), brass, bronze, and copper–in the creation of functional and ceremonial objects for churches, cathedrals, synagogues, temples, and other houses of worship.

In the last century, two events had significant ramifications in the design and creation of metal objects for houses of worship. First was the introduction of artificial illumination. Candles were supplanted by gas and, eventually, by electric light. In Eastern traditions, oil lamps are more frequently used. Even today, candlesticks of various sizes are made of wrought iron, brass, bronze, silver, silver with a gold wash (vermeil), and pure gold.

Electric light was initially supplied in the form of a single naked bulb suspended from an electrical cord, producing glare. The need to guide or direct the increasingly strong light became a priority. Rambusch began designing and crafting light shields from wrought iron, bronze, and repoussé copper as early as 1908. These units were usually placed on either side of the sanctuary arch. Shielding the eyes of the congregation, they directed the beams of light onto the celebrant and the altar towards the rear sanctuary wall. Often a single decorative metal shield was hung in front of a side altar or shrine.

Demand for even more light of different qualities from different sources resulted in the design of deceptively simple-looking steel shrouds or housings that could be cut and worked in steel, brass, and bronze to hide the units and direct the beams of light.

Celebration light, in addition to candles, is usually provided by pendant units such as chandeliers. An exceptionally evocative lighting fixture made of wrought iron is the deer seeking living water. Often, congregations wish to

Photo: Courtesy of Rambusch Company

A bronze and wrought iron shield depicting St. Mark, used to conceal lighting fixtures on the obverse side.

St. Francis of Assisi Cathedral in Metuchen, New Jersey, moved its ornate metal tabernacle back to its original position behind the main altar in 2008, crowned with a polished bronze fillet and dome.

Underside of a wrought-iron chandelier depicts two deer seeking streams of living water, appropriate for a baptistery.

retain these visual sentimental connections to their past history.

The second event that had pervasive effects on Catholic church interiors and the metal objects designed and made for them was the promulgation of the directives following Vatican II. Some of the largest metal objects in the interiors were baldachins. Rambusch designed and built more than 50, about 30 of which were metal (most were bronze). Some weighed more than a ton and were richly designed with a lexicon of symbols. Some had hidden in their soffits light fixtures and amplification systems. Many of the soffits were of polychromed enamel in a specially developed cloisonné technique. After Vatican II many baldachins were removed.

Another change was the removal of the altar rail that was perceived as separating the congregation from the celebrant, who now faces the congregation during the liturgy. Altar rails, often made of metal, invited embellishment with evocative symbols of grapes, vines, wheat, and angels. Most frequently, they were made of cast brass, bronze, or wrought iron in a kaleidoscope of decorative styles: classical, art deco, art nouveau, and modern.

The baptistery, usually a space separated from the body of the church, lent itself to the design and creation of metal gates to make secure and precious the intimate area. The font cover was often of metal and was a ready surface for artistic and symbolic design treatment.

Tabernacles, often evidenced only by a metal door in the reredos at the rear of the sanctuary, have been removed from their central axis, made freestanding, and placed in another location. Worshiping congregations, wanting a sense of continuity, often commission tabernacles featuring the doors of the older tabernacles. These new constructions are of brass, sometimes gold plated, bronze, and stainless steel.

Exemplifying these changes is Saint Francis of Assisi Church, built in 1963. At that time, a square bronze tabernacle was located on a stand against the back wall of the sanctuary behind the altar. In November of 1981, Saint Francis Church became the cathedral for the Diocese of Metuchen. Rearrangements in the sanctuary resulted in moving the tabernacle

Acid-etched bronze tabernacle in the Church of the Epiphany in New York, New York, decorated with gems donated by the congregation.

Church of the Epiphany's bronze angel door pull shows the traces of being touched by thousands of congregants.

Photo: Courtesy of Rambusch Company

to the right-side altar wedged beneath a statue of Mary. In 2008, this unsatisfactory arrangement was rectified. A perfectly proportioned Perlato marble pedestal matching the altar and cathedra was designed and installed to hold the newly designed tabernacle. The flat-box profile was modified with a cast bronze fillet surmounted by a half dome of polished bronze. Immutable as metal can be, adjustments by skilled hands can result in an entirely different form.

Candlesticks were the least affected with the changes mandated by Vatican II. Their form, material, and function remained the same save for the introduction of electrical sources. Prior to Vatican II, large candlesticks were on the gradines as part of the altar or reredos. Now, they are free-standing around the altar. Metal, after it is worked, can be left unfinished. However, most likely, it has a hand-applied finish, and then baked lacquer is applied. This avoids oxidation that is inevitable for untreated pieces, thereby keeping the patina and tonal variations.

A case study in taste and suitability is found in the Church of the Epiphany, the first church built in the Archdiocese of Manhattan after Vatican II. The altars are of hand-worked white Vermont marble. Native cherry and solid bronze were the unifying elements for all the furnishings of the church: floor-standing candlesticks, baldachin, altar rail, credence tables, tabernacle, with the door embellished by gems donated by the congregation. All the solid bronze stock was acid etched, resulting in a varied-depth, free-form design. The raw surface was hand rubbed with ochre a number of times, producing a rich, warm, varied patina that was sealed with a clear matte lacquer. A new pastor deemed the complex subtle finish "dirty," and all the bronze was mechanically ground down to a shiny, smooth surface and sealed to keep this brightness. The sole exceptions were the angel door pulls because they could not be removed. Their wings are a mellow bronze and their halos are a warm golden radiance because of the thousands of hands that have touched them, bringing to mind the famous seated statue of Saint Peter in Rome with his extended foot glowing golden from the millions who have touched the metal.

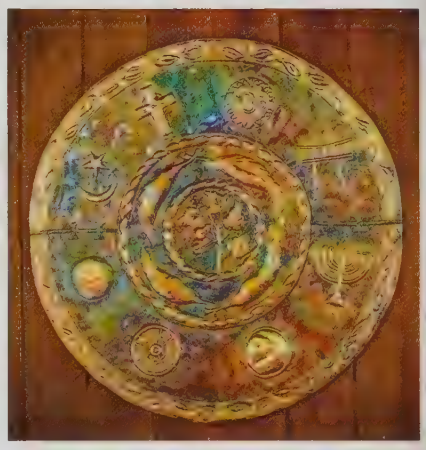
Metal, immutable and unyielding, is still slowly worn by time and use just like the stone treads in ancient buildings that attest to their shaping by time and people.

Catha Grace Rambusch is the archivist for the Rambusch Company, and a recipient of an AIA Silver Metal and a Public Service Award from the U.S. Department of the Interior.

An 'Antique Sun' for Sacred Art

By Sooriyakumar

Photo: Hillery Hanby



Above, detail from the 'Tree of Life' for a Greek Orthodox chapel in Hawaii, of an animal with a cross on a fine piece of copperwork.

Top, detail of 'Wheel of Religions,' includes eight world religious symbols.

Left, The copper base of this Buddhist shrine in Waianae, Oahu, Hawaii complements the bronze statue of Shiva.

Copper, an extraordinary material, is immediately beautiful and attractive in its pure state, even before the first attempt to meld it with artistic imagination is made. Its unique color is reminiscent of an antique sun: brilliant yet elegant and soft, strong yet gentle and welcoming.

I have worked in marble, concrete, iron, stone, and wood, but copper remains my favorite medium for artistic and spiritual expression. Copper is malleable even at room temperature, easily transformable, and rich with possibilities. It is a very forgiving material; any mistakes pose no problem and can easily be rectified or changed. Thus, the artist feels a strong connection to copper unlike that to any other material. As it is tapped, pounded, shaped, and fashioned with each stroke of the mallet, the copper seems to come along with the artist, traveling together as one on the same journey of life. It is a kind of interaction, as with a friend, cultivating the divine force in each other.

Since I was a young boy, I have been entranced by copper. In Sri Lanka, the country of my birth, I first noticed the use of copper in the sacred artwork of temples and shrines. Sacred images engraved into copper beamed at me with silent wisdom, their features polished to a bright hue by the hands of countless devotees. Iconic statues made of copper seemed to glow with spiritual energy, and invited my soul to dance. Even entire temples were built from this captivating material. I wanted to learn as much as I could about temple art and architecture, and how to produce such beautiful images.

Later as I traveled in India and Nepal, I saw even more fascinating images clad in copper. I was very interested in the sacred art of every culture, so I journeyed on to Afghanistan,

The artist and author at work on a copper creation.

Yugoslavia, Italy, and Scandinavia, spending time all over Europe to investigate Western sacred images, especially as they appeared in copper. I was captivated by the radiant beauty and gracious aesthetics of this metal, the impression of which did not change even as cultures, languages, and religions changed along my travels.

Even at a young age, I realized there was more to copper than aesthetic pleasure; there was a spiritually uplifting quality that intrigued me on a much deeper level. Growing up in Sri Lanka, I remember eating from plates and goblets made entirely from copper, the purpose of which was as practical as it was aesthetic: copper vessels have been used this way since ancient times to sterilize water. Copper has many cleansing properties including being antibacterial, antifungal, and anti-inflammatory. It makes sense then that in Asia it is commonly believed that copper offers the gift of calmness and protection to those who come in contact with it. Its beauty and special protecting powers make copper a natural choice of material for sacred imagery, invoking the divine to bestow safety and blessings on devotees.

For me, the true value of copper incorporates all of this and more. As the medium of my art, copper is a manifestation of my spiritual essence, indeed the product of spiritual love. From my viewpoint, copper can be seen as a conduit between the secular and the divine, connecting the physical and the spiritual. I put my heart, soul, and life force into each piece of artwork I make. In this way I connect with the Creator. This is the way one can get to know one's real self better, as well as cultivate one's relationship with the divine.

Over the 30 years that I have produced copper repoussé artwork in my workshop in Hawaii, my artistic skill has emerged from a long line of traditional techniques as well as from spiritual discipline. Keeping always to the traditional ways of craft, I work with simple tools I have made myself. I clean and bless my tools in a special annual ceremony to respect and acknowledge their role in helping me produce my artwork.

From start to finish, my work with copper is a spiritual exercise. I begin every piece by laying out a flat sheet of copper and offering a prayer to bless the ensuing artistic creation. Fully immersed in the task before me, I then meditate until the feeling of the art is born in my heart; only then do I take up my tools and begin to fashion the plain sheet into a beautiful image. While I work, I chant in my native Tamil language, keeping time with the pounding of my mallet and chisel. This chanting is much more than just a musical accompaniment; it is a way to maintain calm focus on the creative spirit and to concentrate the feeling that is being generated by my heart.

I believe that this whole process brings out a kind of sacredness in my art as it is being formed. Feeling grows from the heart and reaches into the artwork, like a seed that grows into a tree and eventually bears fruit. While working on bringing the image of Christ onto a piece of copper I first have to feel the presence of Christ in myself. As I finish each piece, I say another prayer to invite a breath of life into the newly created art.

Each piece of art is a reflection of an inner journey, and an expression of great joy that I love to share with others. I see the copper as a bridge between the great Creator and the artist. The viewer of the art is welcome to join the journey as well. When so much loving spiritual force is put into each piece, the effect can be felt as well by the viewers of the art. Each piece of art seems to have an aura about it, something fascinating and exquisite, that draws in the viewer. This quality may not be immediately apparent, but it grows steadily as one's eyes venture across this bridge. The eyes are captivated and the heart is moved, leading the viewer to a new uplifting spiritual experience.

Sooriyakumar is a master coppersmith residing in Hawaii since the early 1980s. His work can be found on his website: sooriya-art.com

Mosque design by University of Hartford graduate architecture student Andrew McKeon.

"Ground Zero Mosque" Is Catalyst for Student Designs

One of the challenges in architectural education is to connect what goes on in studio with the larger world outside the academy, to make it relevant, and to consider design in response to current social/cultural events. Such an opportunity presented itself last semester, when a graduate architecture studio at the University of Hartford took the "Ground Zero mosque" controversy as a context for design. As studio critic, I decided to offer the project focusing on Park51 in lower Manhattan, the site of the proposed Islamic community center, two blocks northeast of the Twin Towers site. This was to be a unique educational opportunity that would require the students to appreciate that architecture must not only reflect program, client, budget, etc., but must also address sensitive political, social, and religious issues.

The dozen students were of different faiths, including Islamic. Since most of them had had little exposure to the Muslim faith and people, a great deal of research was needed. We visited a mosque at the Islamic Association of Greater Hartford in Berlin, Connecticut, for a tour of the facility and a prayer service. The students learned not only that Allah is the same God worshiped by Jews, Christians, and Muslims, but also that the Muslim Prayer Hall, purposely bare and with perhaps different proportions, still resembles somewhat the prayer spaces of other faiths. They felt comfortable within the facility and welcomed by the people we met.

At the Hartford Seminary's Macdonald Center for the Study of Islam and Christian-Muslim Relations we received an informative presentation from Dr. Yahya Michot, himself an Islamic scholar and a Muslim. He discussed many mosque structures, from ancient to new; we noted that he presented only structures he had visited. Our discussion considered the challenges and the opportunities of the project. Dr. Michot expressed his belief that it should not be built, as the wounds of 9/11 are still open.

The students researched and analyzed mosque architecture; community centers; sustainability; historical/political context; the location of other religious structures (prior to 9/11, at least two mosques existed near the World Trade Center); planning/zoning requirements; site views; street elevations; climatic influences; prevailing winds; sun studies; site access; and local public transportation. They also built physical and digital models of the site and the surrounding neighborhood.

At the end of the semester, the students exhibited their projects, which were later that day reviewed by a diverse group of jurors. The projects were varied in design, each with its own merits. All were sensitive to the issues, controversy, and discussion that came with this assignment. The students approached the project as a community center with a prayer hall, or as an Islamic study center, not solely as a house of worship. Some had placed the prayer space in open view (an attempt to remove any secrecy and to show that Muslims pray just as others do). After the reviews the jurors shared their thoughts; one of the most interesting comments came from Dr. Michot, who had originally been opposed to the actual project. The student presentations, he said, had "changed his mind" about the project, and he now thought it should be built if designed appropriately.

Our project revealed that architecture can successfully deal with politically and emotionally sensitive issues, that architecture can serve as a forum for discussion of such topics, and can help architecture students grow and mature as architectural designers.

~ *Daniel Davis, AIA, LEED AP*

Dan writes as a professor of architecture at the University of Hartford in Connecticut.

Berakah Award Bestowed to Vosko

The Rev. Richard S. Vosko, Ph.D., Hon. AIA, has received the Berakah Award from the North American Academy of Liturgy (NAAL). The Berakah Award is the highest award given by the NAAL, an international, interfaith association of scholars and professionals in the area of liturgy and worship. It is bestowed on one of its members in recognition of outstanding contributions to the field. Vosko, a liturgical design consultant and a member of the *Faith & Form* editorial advisory board, has completed 120 building projects, designing and renovating liturgical spaces in churches and synagogues.

Sacred in Seattle

At the door to the "Sacred in Seattle" exhibition at the Wing Luke Museum of the Asian Pacific American Experience (The Wing), guests are asked to list sacred sites within the city; answers range from Mt. Rainier to the coastal Hoh Rainforest and the Salish Sea. While the answers may seem to reflect Seattle's status as the most unchurched city in the nation, further exploration of the exhibition reveals a different story.

"Sacred in Seattle" tells the story of Asian Pacific American immigrants' sacred and religious experiences in America: the traditions they brought from home and their merging with local ways; their stories of assimilation and segregation juxtaposed with their simultaneous quest for distinct cultural identity while maintaining fragile ties to home. Many Asian Pacific Americans (hailing from 40 countries) have multiple religious identities; during World War II many adopted Western religions for safety because Eastern religious pursuits, then deemed un-American, could subject families to harm. In Asian cultures the sacredness of objects melds home and civic, from small altars at a business threshold to small home shrines, where offerings are made daily, with natural elements both inside and out playing a large ritual role. Tibetan prayer flags, symbols of water, sky, fire, wind, and earth, and flown to disperse healing blessings or spiritual well-being, represent this beautifully. Sacred ritual entwines with cultural identity as a foundation for life in a new country, connecting home in America with home abroad.

Quote of Note:

"Nature is a place of rejuvenation and sacredness outside the church."

Hilda Guiao

The exhibition design itself, as it winds through the hallways of The Wing, represents this merging of the familiar with civic sacred space. Clearly a design challenge for the curators and designers, the design quest is explored in a public forum via the exhibition blog at: seattleu.edu/artsci/theology/blog.aspx, which also serves as the exhibition's virtual sacred space. The community-based exhibition model The Wing and its advisors chose to use for the exhibit's design and content clearly reflects the sacred inclusivity of daily life that, for many Asian Pacific Americans connects individuals to a whole while transmitting an integrated approach to faith.

For more information on The Wing: wingluke.org/home.htm. For more information on The Wing's partner for this exhibition, Seattle University's School of Theology and Religious Studies: seattleu.edu/artsci/theology/default.aspx?id=982.

Ann Kendall

Ann Kendall is a "Sacred in Seattle" Wayfinder.

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The editors of Faith & Form want to bring its readers the latest news of those involved in the fields of religion, art, and architecture. Send press releases and materials to the attention of Michael J. Crosbie, Editor, Faith & Form, 47 Grandview Terrace, Essex, CT 06426; email: mcrosbie@faithandform.com.

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Originally decorated by the Conrad Schmitt Studios in 1927, St. James Church in Louisville, KY, had suffered severe plaster damage through the years and the ornate decorative scheme had been painted over. Aided with historic photos, a study was conducted to determine the exact colors and patterns of the original decoration. An on-site sample of the historic scheme, together with CSS-designed fundraising materials, helped to generate the enthusiasm and financial support needed to restore the church to its former glory.

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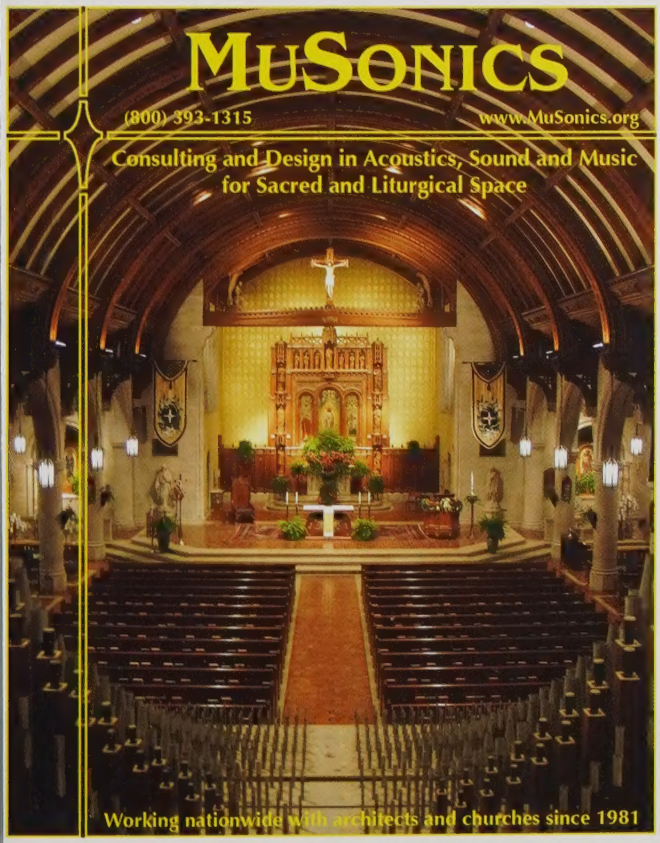

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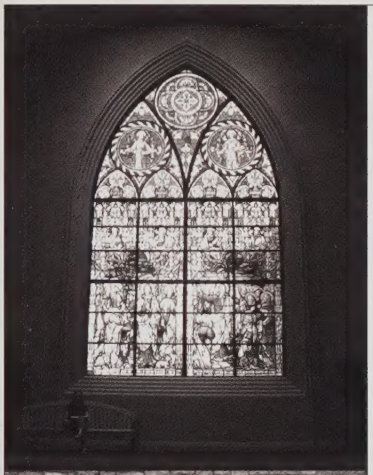

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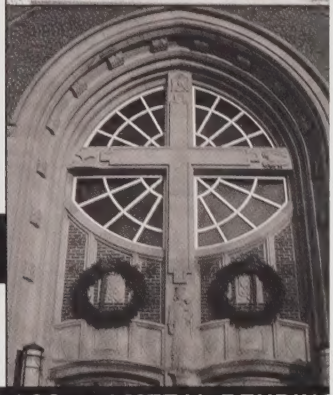

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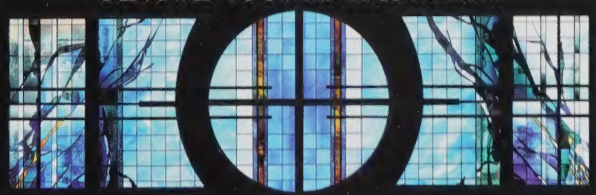

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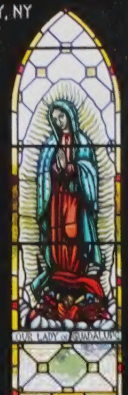

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What's In A Name?

Just One More Thing... * Betty H. Meyer

The name of our magazine is *Faith & Form* and when I started to think about a subject for my column in this issue, I suddenly realized that I almost always address form instead of faith. Why? Is it so difficult to describe one's faith in words? Of course, part of our reluctance to do so is that we want people to have the freedom to define their own personal faith. We believe it is their privilege.

Now perhaps I've already stepped on some toes. Many believe that faith is defined quite literally by ancient texts, divine revelation, and commentaries from holy persons down through the ages. Others, and I guess I lean in this direction, see faith as a very personal and lifelong process we pursue to discover and understand our reason for being and our place in the cosmos.

Either way, faith is our attempt to go beyond the physical universe and the empirical approach of science. The dictionary defines faith as "a strong belief in God based on spiritual apprehension rather than proof." It is our way of seeking the meaning of life beyond the simple fact of being alive. The existence of God the Creator, God's role in history and in our lives, life before birth and after death, and the wondrous miracle that we call human consciousness all fall under the canopy of faith and spirit.

So then, what is our job in designing places of worship? Some folks prefer the awesome scope of a cathedral, while others would rather sit beneath a living tree. To some, the joyous sound of a choir brings on a glorious feeling; others want quiet contemplation. I've even said a prayer or two in rush hour traffic.

And there's the rub. There is no "one size fits all." There is no equation that we can solve. There is no right way to do it. Whatever we think, it's more than that. All we can hope to do is to present the Mystery in a way that helps us transcend the mundane and glimpse the sacred.

Faith and form. This is our work. And it's a good name for what we do.

Betty H. Meyer is Editor Emeritus of *Faith & Form* and can be reached at bmeyer@faithandform.com

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